

Food and Agricultural Exports Increased in 2000 at a Greater Rate Than Imports, Reversing 5-Year Trend

William Edmondson

Exports make an important contribution to the farm sector and to the U.S. economy as a whole. In 2000, the United States exported \$51.6 billion of agricultural products, up from \$48.3 billion in 1999. Exports of agricultural commodities increased to \$52.7 billion during fiscal year 2001.

The increase in dollar value of exports was due to higher prices for some bulk commodities (wheat, sorghum, soybeans, tobacco, and cotton) and increased global demand—after years of sluggishness—by the stronger economies in Asia, Russia, and Latin America. The U.S. dollar is still strong.

Agricultural exports are vital to the U.S. economy, supporting jobs on farms and in food processing, other manufacturing plants, and the transportation and trade sectors. Agricultural exports generated an estimated 740,000 jobs in 2000, of which 296,000 were on farms. The impact of agricultural exports on the U.S. economy is far-reaching. Every dollar of exports generated an additional \$1.47 in economic activity in supporting sectors (table 1).

William Edmondson is an economist in the Food Markets Branch, Food and Rural Economics Division, ERS. (202-694-5374, wedmonds@ers.usda.gov)

Imports of agricultural products were worth \$39.0 billion in 2000, up from \$37.9 billion in 1999. Agricultural imports are forecast to hold steady in fiscal year 2001 at \$39 billion. Since agricultural exports exceeded imports, the United States had a positive trade balance in agricultural products of \$12.6 billion in 2000, an increase over 1999's \$10.4 billion and the first year-to-year increase since 1996. The trade balance rose in 2000 as agricultural exports increased by \$3.3 billion and imports by \$1.1 billion over 1999. An even greater positive agricultural trade balance is forecast for 2001.

About \$8 billion of the 2000 imports were such commodities as bananas, coffee, and tea that do not compete with U.S. products. The remaining \$31.2 billion of imports—such as meat, dairy products, fruits, nuts, vegetables, sugar, and wines—do compete with U.S. products. The United States imported more processed or high-value foods—such as sausages, cheeses, confectionery goods, and wines—than it exported in 2000, resulting in a negative trade balance in non-bulk commodities.

Exports of processed agricultural products have more extensive impacts on the U.S. economy than exports of bulk commodities. Nonbulk products account for most of the economic activity generated by agricultural exports. In 2000, they accounted for 420,000 of the 740,000 jobs attributed to agricultural exports. Each dollar of non-

bulk agricultural exports (fresh fruits and vegetables and "value-added" processed products) generated an additional \$1.63 in supporting activity, compared with \$1.18 for each dollar of bulk exports (grains, oilseeds, and cotton). Bulk exports, however, generated more U.S. jobs per \$1 billion of exported commodity than did processed exports because of the high volume and relatively low prices of bulk goods over the past 3 years. In 2000, \$1 billion of bulk exports supported 17,200 U.S. jobs, compared with 12,700 for nonbulk exports. An unusual occurrence of volume and prices combined in 2000 for this anomaly—bulk goods adding more jobs—to take place.

Economic Impacts of Food Trade

U.S. agricultural trade includes many commodities not meant for human consumption, including hides and skins, pharmaceutical products, toiletries, resins, and food processing byproducts. Many requests to ERS are concerned with the impacts of trade in products meant strictly for human consumption, or "edible food." While a true "food only" definition of trade may never be reached, ERS researchers have identified a commodity basket of goods that best reflects this objective. For example, oats can be used as both an animal feed and a breakfast cereal. Some items not usually readily consumed in the United States require little additional processing in the importing countries. Pet foods are included

in both food and agricultural export totals. Total food exports in 2000 were \$47.1 billion, versus \$51.6 billion of total agricultural exports (table 1).

Total food exports contain \$14.6 billion of bulk exports (compared with \$18.6 billion in the agricultural total) and \$29.3 billion of nonbulk commodities (versus \$33 billion in the agricultural total). The difference between these numbers represents what ERS feels are inedible, nonfood items. Unique to the food trade aggregation (i.e., not counted in the agricultural exports) is the addition of fresh, frozen, and canned seafood and distilled liquors, worth \$3.2 billion.

Each dollar of food exports in 2000 stimulated another \$1.46 in supporting activities to produce and deliver these exports. Thus, the \$47.1 billion of food exports in 2000 stimulated an additional \$68.9 billion in supporting activities for a total of \$116.0 billion in business activity. Food exports generated an estimated 697,000 full-time civilian jobs, including 441,000 nonfarm jobs. Net food exports, which were not split into bulk and nonbulk for this analysis, contributed \$3.8 billion to the U.S. trade balance, compared with the \$12.6-billion trade surplus generated by all agricultural exports in 2000.

Of the \$47.1 billion of food products exported in 2000, the value of exported raw products was \$14.6 billion; processed commodities, \$23.8 billion; and transportation and trade services for raw and processed products, \$8.6 billion. There are more processed food commodities included in the direct exports of food than of agricultural exports—\$23.6 billion versus \$22.5 billion—because of the addition of fish and distilled spirits to the food

totals. The \$68.9 billion in food trade supporting activity included \$12.1 billion from the farm sector, \$5.2 billion from the food processing sector, \$15.0 billion from manufacturing sectors other than food processing, \$11.9 billion from trade and transportation, and \$24.6 billion from services other than trade and transportation. Nonfarm sectors of the economy received about 82 percent of the additional economic activity.

Almost 700,000 full-time jobs were required to support food exports, 256,000 U.S. farmworkers (or 9 percent of the farm labor force) and 441,000 nonfarm workers. About 79,000 jobs were in food processing, 131,000 in trade and transportation, 55,000 in other manufacturing sectors, and 176,000 in other services (table 1). Farm jobs suffer most by comparison with jobs generated by all agricultural exports. The addition of seafood and distillery products in the food total does little to generate farm jobs.

Effect of Food Imports on U.S. Output

The United States imported \$43.3 billion in food commodities that competes with U.S. products in 2000 (versus \$31.2 billion of competitive agricultural imports). The \$7.8 billion of complementary agricultural trade that does not compete with U.S. production contains items that may or may not be considered food.

The direct food import basket contains \$800 million of bulk products, \$31.7 billion of nonbulk products, and \$10.8 billion of seafood and distilled products. The equivalent domestic output effect of the \$43.3 billion of competitive food imports is an estimated \$102.6 billion. Each dollar spent on these

imports would have required another \$1.37 in supporting goods and services if those imported items had been produced domestically. Thus, the U.S. net business surplus for food trade in 2000 was an estimated \$13.4 billion, \$116.0 billion of total output generated by food exports minus \$102.6 billion in stimulation forgone by food imports.

U.S. food trade benefits most sectors of the economy. The farm sector's \$26.7 billion of output associated with food exports almost doubles the \$15.1 billion of farm output implicitly lost because of competitive food imports. Manufacturing sectors, including food processing, gave up \$8.2 billion in total output, about 26,000 jobs, and \$3.2 billion in income implicitly lost to food imports. Outside of farming and food processing, the U.S. directly accrued a net \$0.9 billion from food trade. Food processing alone lost \$6.4 billion in direct trade and another \$6.1 billion in additional output. (These losses represent economic activity that could have been captured domestically had the imports been manufactured in the U.S. As such, they are hypothetical. This analysis does not capture the added activity that is generated by imports if they are used as an intermediate ingredient in the production of other food products.)

In 2000, the nonfarm share of total income attributed to food exports and food imports was 78 percent and 88 percent, respectively, with nonfarm, nonfood sectors of the economy receiving 64 percent of income from both food exports and imports. The farm sector received 22 percent of the total income from food exports, while the food processing sector received 14 percent, reflecting the impor-

Table 1

U.S. economic activity triggered by agricultural and food trade

Item	1999	Agricultural trade, 2000			Food trade
	Total	Total	Bulk	Other	2000
<i>Billion dollars</i>					
Economic activity generated by exports	115.6	127.3	40.6	86.7	116.0
Exports	48.3	51.6	18.6	33.0	47.1
Imports	37.9	39.0	1.5	37.5	43.3
Complementary	8.0	7.8	0.0	7.8	0.0
Competitive	29.9	31.2	1.5	29.7	43.3
Trade balance	10.4	12.6	17.1	-4.5	3.8
Supporting activities	67.3	75.7	22.0	53.7	68.9
Farm	12.8	14.3	0.8	13.5	12.1
Food processing	5.1	5.5	0.1	5.4	5.2
Other manufacturing	15.0	16.7	6.1	10.1	15.0
Trade and transportation	11.7	12.8	3.9	8.9	11.9
Other services	22.7	26.4	11.1	15.3	24.6
<i>Percent</i>					
Nonfarm share of supporting economic activity	81	81	96	75	82
<i>Multiplier</i>					
Export multiplier (additional business activity generated by \$1 of exports)	1.39	1.47	1.18	1.63	1.46
<i>1,000 jobs</i>					
Employment generated by exports	735	740	320	420	697
Farm	295	296	177	119	256
Employment per billion dollars of exports	15.2	14.3	17.2	12.7	14.8
<i>1,000 jobs</i>					
Nonfarm	440	444	143	301	441
Food processing	71	70	0	70	79
Other manufacturing	59	59	19	40	55
Trade and transportation	135	135	52	83	131
Other services	175	180	72	108	176
<i>Billion dollars</i>					
Domestic equivalent of economic activity generated by competitive imports	70.6	75.4	3.3	72.1	102.6
Net business surplus of trade	45.0	51.9	37.3	14.6	13.4
Nonfarm, nonfood processing sectors:					
Net direct benefit from exports	4.6	5.2	3.8	1.4	.8
Net increased output from exports	20.9	24.6	19.4	5.2	7.8
<i>Percent</i>					
Farm share of total income from exports	24	24	35	17	22
Trade and transportation share of total income from exports	25	24	24	25	25

Source: Calculated by ERS using data from the U.S. Department of Commerce.

tance of raw food commodities in the export bill of goods. The income shares of food imports (\$6 billion less than exports) were a reversal of the export share proportions. The food processing sector received 24 percent and the farm sector generated 12 percent of all income from imports, reflecting the

greater importance of processed food products in the food imports bill of goods.

This analysis does not include additional spending that may result from the income generated by this trade, so these estimates of economywide influences of agricultural and food trade are conservative. ^{RA}



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